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PTO/SB/05 (03-01)

Approved for use through 10/31/2002. OMB 0651-0032
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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR § 1.53(b))

| | |
|------------------------|---|
| Attorney Docket No. | 1875.0250002/RES/AJF |
| First Inventor | Juin-Hwey Chen |
| Title | Noise Feedback Coding Method and System for Efficiently Searching Vector Quantization Codevectors Used for Coding a Speech Signal |
| Express Mail Label No. | |

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original, and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 96]
(preferred arrangement set forth below)
- Descriptive title of the Invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to sequence listing, a table, or a computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 34]
5. Oath or Declaration [Total Pages 2]
a. ☒ Newly executed (original or copy)
b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR §§ 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76.

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program
(Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
a. ☐ Computer Readable Form (CRF)
b. Specification Sequence Listing on:
i. ☐ CD-ROM or CD-R (2 copies); or
ii. ☐ paper
c. ☐ Statements verifying identity of above copies

11046 U.S. PTO
09/832132
04/11/01

ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☒ 37 CFR 3.73(b) Statement ☒ Power of Attorney From Assignee
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Two Return Receipt Postcards (MPEP 503)
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Authorization under 37 C.F.R. § 1.136(a)(3)
☒ Other: The name of the assignee is: Broadcom Corporation

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

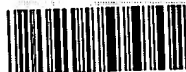
☐ Continuation ☐ Divisional ☒ Continuation-in-Part (CIP) of prior application No: 09/722,077
Prior application information: Examiner To be assigned Group/Art Unit: 2644

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label

Customer No. 26111



or ☐ Correspondence address below

(Insert Customer No. or Attach bar code label here)

| | | | | | |
|---------|---------------------------------------|-----------|--|----------|--|
| NAME | STERNE, KESSLER, GOLDSTEIN & FOX P.C. | | | | |
| ADDRESS | Attorneys at Law | | | | |
| CITY | | STATE | | ZIP CODE | |
| COUNTRY | | TELEPHONE | | FAX | |

| | | | |
|-------------------|----------------------------|-----------------------------------|----------------|
| NAME (Print/Type) | Albert J. Fasulo, II | Registration No. (Attorney/Agent) | 43,607 |
| SIGNATURE | <i>Albert J. Fasulo II</i> | Date | April 11, 2001 |

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J11046 U.S. PTO
09/832132
04/11/01

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ELIZABETH J. HAANES**
MARK P. TERRY**

*BAR OTHER THAN D.C.
**REGISTERED PATENT AGENT
***SENIOR COUNSEL

April 11, 2001

WRITER'S DIRECT NUMBER:

(202) 312-7261

INTERNET ADDRESS:

AFASULO@SKGF.COM

Commissioner for Patents
Washington, D.C. 20231

Box Patent Application

Re: U.S. Non-Provisional Utility Patent Application under 37 C.F.R. § 1.53(b)
(Continuation-in-Part of Appl. No. 09/722,077; Filed: November 27, 2000)

Appl. No. To be assigned; Filed: HERewith

For: **Noise Feedback Coding Method and System for Efficiently Searching
Vector Quantization Codevectors Used for Coding a Speech Signal**

Inventor: Juin-Hwey Chen

Our Ref: 1875.0250002/RES/AJF

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.
Patent and Trademark Office:

1. PTO Fee Transmittal (Form PTO/SB/17) (*in duplicate*);
2. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
3. U.S. Utility Patent Application entitled:

**Noise Feedback Coding Method and System for Efficiently Searching Vector
Quantization Codevectors Used for Coding a Speech Signal**

and naming as inventor:

Commissioner for Patents

April 11, 2001

Page 2

Juin-Hwey Chen

the application consisting of:

- a. A specification containing:
 - i. 82 pages of description prior to the claims;
 - ii. 13 pages of claims (47 claims);
 - iii. a one (1) page abstract;
 - b. 34 sheets of Formal Drawings: (Figures: 1, 1A, 2, 2A, 3-5, 5A, 6, 6A, 6B, 7-12, 13A, 13B, 13C, 13D, 13E, 14A, 14B, 14C, 14D, 14E, 15A, 15B, 16A, 16B, 17-19); and
 - c. An original executed Declaration;
4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3) (*in duplicate*);
 5. Recordation Form Cover Sheet (PTO-1595);
 6. An original executed Assignment to Broadcom Corporation, recordation of which is hereby respectfully requested;
 7. An original executed Power of Attorney from Assignee;
 - ✓ 8. A Certificate under 37 C.F.R. § 3.73(b) from Assignee with a copy of the Assignment attached;
 9. Application Data Sheet (37 C.F.R. § 1.76);
 10. Our **Check No. 30939** for **\$1,236.00** to cover:
 - \$ 710.00 Filing fee for patent application;
 - \$ 486.00 Excess claims fee;
 - \$ 40.00 Assignment recordation fee; and
 11. Two (2) return postcards.

Commissioner for Patents

April 11, 2001

Page 3

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Albert J. Fasulo, II
Attorney for Applicant
Registration No. 43,607

Enclosures

RES/AJF:vrh
P:\Users\AFASULO\1875\0250002\NewAppl-ptoltr
SKGF Rev. 8/1/00 mac

**FEE TRANSMITTAL
for FY 2001**

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$)**1,236.00****Complete if Known**

| | |
|----------------------|----------------------|
| Application Number | To be assigned |
| Filing Date | HEREWITH |
| First Named Inventor | Juin-Hwey CHEN |
| Examiner Name | To be assigned |
| Group Art Unit | To be assigned |
| Attorney Docket No. | 1875.0250002/RES/AJF |

METHOD OF PAYMENT (check one)

- 1.
- ☐
- The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:

| | |
|------------------------|---|
| Deposit Account Number | 19-0036 |
| Deposit Account Name | Sterne, Kessler, Goldstein & Fox P.L.L.C. |

- ☐
- Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17

- ☐
- Applicant claims small entity status See 37 CFR 1.27

- 2.
- ☒
- Payment Enclosed:

☒ Check ☐ Credit card ☐ Money Order ☒ Other*

*Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.

FEE CALCULATION**1. BASIC FILING FEE**

| Large Fee Code | Entity Fee (\$) | Small Fee Code | Entity Fee (\$) | Fee Description | Fee Paid |
|----------------|-----------------|----------------|-----------------|------------------------|----------|
| 101 | 710 | 201 | 355 | Utility filing fee | 710.00 |
| 106 | 320 | 206 | 160 | Design filing fee | |
| 107 | 490 | 207 | 245 | Plant filing fee | |
| 108 | 710 | 208 | 355 | Reissue filing fee | |
| 114 | 150 | 214 | 75 | Provisional filing fee | |

SUBTOTAL (1) (\$)**710.00****2. EXTRA CLAIM FEES**

| Extra | Fee from below | Fee Paid |
|-----------------------------|----------------|----------|
| Total Claims 47 - 20** = 27 | X 18.00 | = 486.00 |
| Indep. Claims 3 - 3** = 0 | X | = 0.00 |
| Multiple Dependent | | = 0.00 |

| Large Fee Code | Entity Fee (\$) | Small Fee Code | Entity Fee (\$) | Fee Description |
|----------------|-----------------|----------------|-----------------|---|
| 103 | 18 | 203 | 9 | Claims in excess of 20 |
| 102 | 80 | 202 | 40 | Independent claims in excess of 3 |
| 104 | 270 | 204 | 135 | Multiple dependent claim |
| 108 | 80 | 209 | 40 | **Reissue independent claims over original patent |
| 110 | 18 | 210 | 9 | **Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) (\$)**486.00**

** or number previously paid, if greater. For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

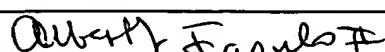
| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | Fee paid |
|----------|----------|----------|----------|--|----------|
| 105 | 130 | 205 | 65 | Surcharge - late filing fee or oath | |
| 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet | |
| 139 | 130 | 139 | 130 | Non-English specification | |
| 147 | 2,520 | 147 | 2,520 | For filing a request for <i>ex parte</i> reexamination | |
| 112 | 920* | 112 | 920* | Requesting publication of SIR prior to Examiner action | |
| 113 | 1,840* | 113 | 1,840* | Requesting publication of SIR after Examiner action | |
| 115 | 110 | 215 | 55 | Extension for reply within first month | |
| 116 | 390 | 216 | 195 | Extension for reply within second month | |
| 117 | 890 | 217 | 445 | Extension for reply within third month | |
| 118 | 1,390 | 218 | 695 | Extension for reply within fourth month | |
| 128 | 1,890 | 228 | 945 | Extension for reply within fifth month | |
| 119 | 310 | 219 | 155 | Notice of Appeal | |
| 120 | 310 | 220 | 155 | Filing a brief in support of an appeal | |
| 121 | 270 | 221 | 135 | Request for oral hearing | |
| 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding | |
| 140 | 110 | 240 | 55 | Petition to revive - unavoidable | |
| 141 | 1,240 | 241 | 620 | Petition to revive - unintentional | |
| 142 | 1,240 | 242 | 620 | Utility issue fee (or reissue) | |
| 143 | 440 | 243 | 220 | Design issue fee | |
| 144 | 600 | 244 | 300 | Plant issue fee | |
| 122 | 130 | 122 | 130 | Petitions to the Commissioner | |
| 123 | 130 | 123 | 130 | Petitions related to provisional applications | |
| 126 | 180 | 126 | 180 | Submission of Information Disclosure Stmt | |
| 581 | 40 | 481 | 40 | Recording each patent assignment per property (times number of properties) | 40.00 |
| 146 | 710 | 246 | 355 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 149 | 710 | 249 | 355 | For each additional invention to be examined (37 CFR 1.129(b)) | |
| 179 | 710 | 279 | 355 | Request for Continued Examination (RCE) | |
| 169 | 900 | 169 | 900 | Request for expedited examination of a design application | |

Other fee (specify):

Other fee (specify):

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)**40.00****SUBMITTED BY****Complete (if applicable)**

| | | | | | |
|-------------------|---|-----------------------------------|--------|-----------|----------------|
| Name (Print/Type) | Albert J. Fasulo, II | Registration No. (Attorney/Agent) | 43,607 | Telephone | 202-371-2600 |
| Signature |  | | | Date | April 11, 2001 |

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

NewAppI-SB17

Certificate Under 37 C.F.R. § 3.73(b)

Applicant/Patent Owner: Broadcom Corporation

Application No./Patent No.: To be assigned

Filed/Issue Date: HEREWITH

Entitled: Noise Feedback Coding Method and System for Efficiently Searching Vector Quantization Codevectors Used for Coding a Speech Signal

Broadcom Corporation

(Name of Assignee)

, a Corporation

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest, or
2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

- A. ☒ An Assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s) of the patent application/patent identified above to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE:] A separate copy (*i.e.*, the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302-302.8]

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

Date: April 5, 2001

Name: WILLIAM J. RUEHL

Title: VICE PRESIDENT & CFO

Signature: [Signature]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Juin-Hwey Chen

Appl. No. To be assigned

Filed: HEREWITH

For: **Noise Feedback Coding Method
and System for Efficiently
Searching Vector Quantization
Codevectors Used for Coding a
Speech Signal**

Confirmation No. N/A

Art Unit: To be assigned

Examiner: To be assigned

Atty. Docket: 1875.0250002/RES/AJF



**Authorization To Treat A Reply As Incorporating An Extension Of
Time Under 37 C.F.R. § 1.136(a)(3)**

Commissioner for Patents
Washington, D.C. 20231

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply. A duplicate copy of this authorization is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Albert J. Fasulo, II
Attorney for Applicant
Registration No. 43,607

Date: April 11, 2001

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RES/AJF:vrh
P:\USERS\AFASULO\1875\0250002\EOT-Auth